

IN THE CLAIMS:

1. – 31. (Canceled)

32. (New) A method comprising:

delivering a ventricular pacing pulse to a heart;
sensing a ventricular signal resulting from the delivered pacing pulse;
detecting intrinsic ventricular activity within the sensed ventricular signal within the heart after delivering the pacing pulse; and
extending a pacing interval between the delivered ventricular pacing pulse and a subsequently delivered ventricular pacing pulse based on the detection of intrinsic ventricular activity.

33. (New) The method of claim 32, further comprising modifying the pacing interval to aid in detecting intrinsic ventricular activity within the heart.

34. (New) The method of claim 33, wherein modifying the pacing interval includes modulating an atrial to ventricular pacing delay.

35. (New) The method of claim 32, wherein the subsequently delivered pacing pulse comprises a pacing pulse delivered to a ventricle of the heart after the delivered pacing pulse.

36. (New) The method of claim 32, wherein detecting intrinsic ventricular activity within the heart comprises comparing a past ventricular signal resulting from a past pacing pulse with the ventricular signal resulting from the delivered pacing pulse.

37. (New) The method of claim 36, wherein a past ventricular signal comprises a past ventricular signal that is representative of a ventricular signal where the heart is fully captured by the past pacing pulse.

38. (New) The method of claim 36, wherein a past ventricular signal further comprises a most recent ventricular signal resulting from a most recent pacing pulse.

39. (New) The method of claim 37, wherein comparing a past ventricular signal resulting from a past pacing pulse with the ventricular signal resulting from the delivered pacing pulse comprises comparing at least one morphological characteristic of the past ventricular signal to a same morphological characteristic of the ventricular signal resulting from the delivered pacing pulse.

40. (New) The method of claim 39, wherein the morphological characteristic includes at least one of a minimum amplitude of a signal, a maximum amplitude of a signal, a width of a signal, a slope of a signal, T-wave timing and T-wave amplitude.

41. (New) A device comprising:

at least one electrode to deliver a ventricular pacing pulse to a heart and sense a ventricular signal resulting from the delivered pacing pulse; and
a processor that detects intrinsic ventricular activity within the sensed ventricular signal within the heart after delivering the ventricular pacing pulse and extends a pacing interval between the delivered pacing pulse and a subsequently delivered pacing pulse based on the detection of intrinsic ventricular activity.

42. (New) The device of claim 41, wherein the processor modifies the pacing interval to aid in detecting intrinsic ventricular activity within the heart.

43. (New) The device of claim 42, wherein the processor modifies the pacing interval modifies the pacing interval by modulation of atrial to ventricular delay.

44. (New) The device of claim 42, wherein the electrode comprises an electrode to deliver a pacing pulse to a ventricle of the heart.
45. (New) The device of claim 41, wherein the processor detects intrinsic ventricular activity by comparing a past ventricular signal resulting from a past pacing pulse with the ventricular signal resulting from the delivered pacing pulse.
46. (New) The device of claim 45, wherein the processor that compares a past ventricular signal that is representative of a ventricular signal where the heart is fully captured by the past pacing pulse.
47. (New) The device of claim 45, wherein the processor compares a most recent ventricular signal resulting from a most recent pacing pulse.
48. (New) The device of claim 45, wherein the processor compares at least one morphological characteristic of the past ventricular signal to a same morphological characteristic of the ventricular signal resulting from the delivered pacing pulse.
49. (New) The device of claim 48, wherein the processor compares at least one of a minimum amplitude of a signal, a maximum amplitude of a signal, a width of a signal, a slope of a signal, T-wave timing and T-wave amplitude.
50. (New) The device of claim 45, further comprising a memory to store the past ventricular signal.
51. (New) A computer-readable medium comprising instructions to cause a processor to:
- control a pulse generator to deliver a ventricular pacing pulse to a heart;
 - sense a ventricular signal resulting from the delivered ventricular pacing pulse;

detect intrinsic ventricular activity within the sensed ventricular signal within the heart after delivering the pacing pulse; and

extend a pacing interval between the delivered pacing pulse and a subsequently delivered pacing pulse based on the detection of intrinsic ventricular activity.

52. (New) The computer-readable medium of claim 51, further comprising instructions to cause the processor to modify the pacing interval to aid in detecting intrinsic ventricular activity within the heart.

53. (New) The computer-readable medium of claim 52, wherein the instructions cause the processor to modify the pacing interval by modulation of atrial to ventricular delay.

54. (New) The computer-readable medium of claim 51, wherein the subsequently delivered pacing pulse comprises a pacing pulse delivered to a ventricle of the heart after the delivered pacing pulse.

55. (New) The computer-readable medium of claim 51, wherein the instructions cause the processor to detect intrinsic ventricular activity within the heart by comparing a past ventricular signal resulting from a past pacing pulse with the ventricular signal resulting from the delivered pacing pulse.

56. (New) The computer-readable medium of claim 55, wherein a past ventricular signal comprises a past ventricular signal that is representative of a ventricular signal where the heart is fully captured by the past pacing pulse.

57. (New) The computer-readable medium of claim 55, wherein the past ventricular signal further comprises a most recent ventricular signal resulting from a most recent pacing pulse.

58. (New) The computer-readable medium of claim 57, wherein the instructions cause the processor to compare the past ventricular signal resulting from the past pacing pulse with the ventricular signal resulting from the delivered pacing pulse by comparing at least one morphological characteristic of the past ventricular signal to a same morphological characteristic of the ventricular signal resulting from the delivered pacing pulse.

59. (New) The computer-readable medium of claim 58, wherein a morphological characteristic includes a minimum amplitude of a signal, a maximum amplitude of a signal, a width of a signal, a slope of a signal, T-wave timing and T-wave amplitude.